

ABSTRACTCOMMUNICATIONS NETWORK

10 A label switched path is determined in a communications multi-service network
comprising a plurality of nodes interconnected via quality of service capable tunnels
to provide a QoS guarantee for a session in which resource availability from the
network edge to multiple central stages and resource availability from the multiple
central stages to the destination edge are established. A series of quality of service
capable tunnels is selected by offering a plurality of candidate central stages to the
15 destination edge and allowing the destination edge to select a complete path across
the network. A label stack comprising a set of four labels is attached to a payload to
define a selected sequence of tunnels.